

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A catalytic converter system located downstream of an engine, the catalytic converter system being suitable for catalyzing the conversion of hydrocarbons, carbon monoxide, and nitrogen oxides and other pollutants contained in a flowing an exhaust gas stream, the converter system comprising:

a low temperature conversion catalyst ~~material~~ comprising a platinum group metal component dispersed on a ~~refractory~~ support material, said low temperature conversion catalyst ~~material~~ having a light-off temperature T_L of less than about 200°C, at which the said low temperature catalyst can attain fifty percent conversion, and being located relative to the flowing exhaust gas stream such that said low temperature conversion catalyst ~~material~~ is never exposed to a temperature in excess of about 550°C;

a hydrocarbon adsorbent material ~~deposited on a refractory carrier, said hydrocarbon adsorbent material being capable of adsorbing hydrocarbons present in said flowing exhaust gas stream and of desorbing the adsorbed hydrocarbons when the temperature~~ located at a position selected from the group consisting of upstream of said low temperature conversion catalyst ~~material~~ relative to the direction of flow of said exhaust gas stream and at said low temperature conversion catalyst relative to the direction of flow of said exhaust gas stream, and being capable of adsorbing hydrocarbons present in said exhaust gas stream and of desorbing the adsorbed hydrocarbons when the temperature of said low temperature conversion catalyst has exceeded said light-off temperature thereof; and

optionally, an upstream conversion catalyst ~~material~~, said upstream conversion catalyst ~~material~~, when present, being located upstream of said low temperature conversion catalyst [material] relative to the direction of flow of said ~~flowing~~ exhaust gas stream to be exposed to temperatures in excess of 650°C.

2. (Currently Amended) The converter system of Claim 1, wherein both said low temperature conversion catalyst ~~material~~ and said hydrocarbon adsorbent material are deposited on ~~said~~ the same or separate refractory carrier carriers.

3. (Currently Amended) The converter system of Claim 1, wherein said low temperature conversion catalyst is disposed ~~in the~~ at a muffler position under the floor of an internal combustion engine powered vehicle, where the temperature of the engine exhaust gas stream is less than 550°C.

4. (Currently Amended) The converter system of Claim [1, wherein] 3, wherein there is further in combination with a muffler at the a muffler position and a tailpipe downstream of the muffler in a tailpipe position, said low temperature conversion catalyst is disposed [in] at the tailpipe position under the floor of an internal combustion engine powered vehicle, downstream of the muffler position.

5. (Currently Amended) The converter system of Claim 1, wherein said low temperature conversion catalyst ~~material~~ comprises platinum supported on titania support material; wherein said low temperature conversion catalyst ~~material~~ has been reduced to enhance its activity for converting hydrocarbons and carbon monoxide to innocuous compounds; wherein said adsorbent material comprises a hydrothermally stable molecular sieve material having a T(50) of at least about 750°C, a hydrocarbon selectivity greater than 1, and a Si/Al ratio of at least about 10; and wherein said low temperature conversion catalyst [material] is located relative to the flowing exhaust gas stream such that it never is said low temperature conversion catalyst is never exposed to a temperature in excess of about 500°C.

6. (Currently Amended) The converter system of Claim 1, which comprises said optional upstream conversion catalyst ~~material~~.

7. (Currently Amended) The converter system of Claim 5, which comprises said optional upstream conversion catalyst ~~material~~.

8. (Currently Amended) The converter system of Claim ~~34~~, wherein said low temperature conversion catalyst ~~material~~ and said adsorbent material are disposed in separate layers on muffler plates located in the path of the ~~flowing~~ exhaust gas stream; and wherein said low temperature conversion catalyst ~~material~~ is never exposed to a temperature in excess of about 500°C.

9. (Currently Amended) The converter system of Claim 3, wherein said low temperature conversion catalyst ~~material~~ and said adsorbent material are disposed in separate layers on ~~aid~~ a refractory carrier and are located relative to the ~~flowing~~ exhaust gas stream such that said low temperature conversion catalyst ~~material~~ is never exposed to a temperature in excess of about 300°C.

10. (Currently Amended) The converter system of Claim 2, wherein said refractory carrier is in the form of a honeycomb ~~-type~~ configuration having cell comprising cell walls; and wherein said low temperature conversion catalyst [material] and said adsorbent material are present in separate layers deposited on the cell walls of said honeycomb ~~-type~~ configuration.

11. (Currently Amended) The converter system of Claim 2, wherein said refractory carrier is in the form of a honeycomb ~~-type~~ configuration having cell comprising cell walls; and wherein said low temperature conversion catalyst ~~material~~ and said adsorbent material are both present in the same layer deposited on the cell walls of said honeycomb ~~-type~~ configuration.

12. (Currently Amended) The converter system of Claim 32, wherein said refractory carrier is in the form of a honeycomb ~~type~~ configuration having cell comprising cell walls; and wherein said low temperature conversion catalyst ~~material~~ and said adsorbent material are present in separate layers deposited on the cell walls of said honeycomb ~~type~~ configuration.

13. (Currently Amended) The converter system of Claim 3, wherein said refractory carrier is in the form of a honeycomb ~~type~~ configuration having cell comprising cell walls; and wherein said low temperature conversion catalyst ~~material~~ and said adsorbent material are both present in the same layer deposited on the cell walls of said honeycomb ~~type~~ configuration.

14. (Currently Amended) The converter system of Claim 3, wherein said low temperature conversion catalyst ~~material~~ and said adsorbent material are both present in the same layer deposited on muffler plates located in the path of the ~~flowing~~ exhaust gas stream; and wherein said low temperature conversion catalyst ~~material~~ is never exposed to a temperature in excess of about 500°C.

15. (Currently Amended) The converter system of Claim 3, wherein said low temperature conversion catalyst ~~material~~ and said adsorbent material are both present in the same layer deposited on said a refractory carrier; and wherein said refractory carrier is located relative to the ~~flowing~~ exhaust gas stream such that said low temperature conversion catalyst ~~material~~ never is exposed to a temperature in excess of about 300°C.

16. (Cancelled) A method for reducing the pollutant emissions in the exhaust gas of an internal combustion engine, at least during a cold-start period of engine operation, comprising flowing the exhaust gas

through an exhaust system comprising the catalytic converter system of any one of Claims 1, 3, 4 and 5.

17. (Currently Amended) The converter system of any one of Claims 1, 3, 4 and 5, wherein there is from about 10 to about 1000 g/ft³ of said platinum group metal in said low temperature conversion catalyst material.

18. (Currently Amended) The converter system of Claim 17, wherein said low temperature conversion catalyst and said hydrocarbon adsorbent material are supported on the same refractory carrier, said refractory carrier being in the form of a honeycomb ~~type~~ configuration.

19. (Currently Amended) The converter system of Claim 18, wherein said low temperature conversion catalyst ~~material~~ and said adsorbent material are deposited in separate layers on said refractory carrier.

20. (Currently Amended) The converter system of Claim 17, wherein said low temperature conversion catalyst ~~material~~ has a light-off temperature of from about 70°C to about 100°C.

21. (Cancelled) The method of Claim 16, wherein said temperature conversion catalyst material has a light-off temperature of less than about 100°C; and wherein said low temperature conversion catalyst material is disposed relative to the flowing exhaust gas stream such that it never is exposed to a temperature in excess of about 500°C.